Fig.1

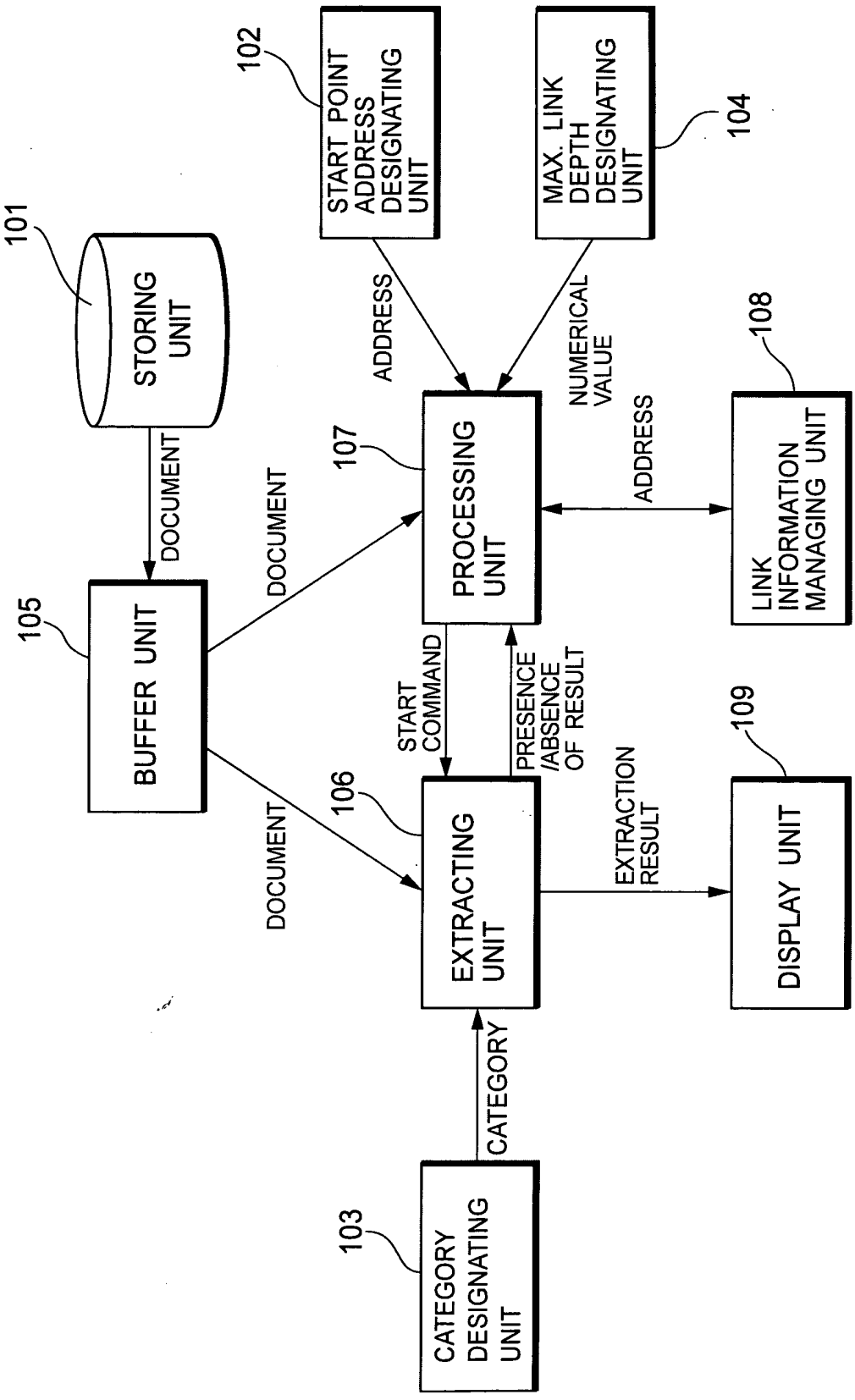

101
STORING UNIT
102
START POINT ADDRESS DESIGNATING UNIT
104
MAX. LINK DEPTH DESIGNATING UNIT
ADDRESS
NUMERICAL VALUE
107
PROCESSING UNIT
108
LINK INFORMATION MANAGING UNIT
DOCUMENT
DOCUMENT
ADDRESS
105
BUFFER UNIT
START COMMAND
PRESENCE /ABSENCE OF RESULT
106
EXTRACTING UNIT
109
DISPLAY UNIT
DOCUMENT
EXTRACTION RESULT
CATEGORY
103
CATEGORY DESIGNATING UNIT

Fig.2

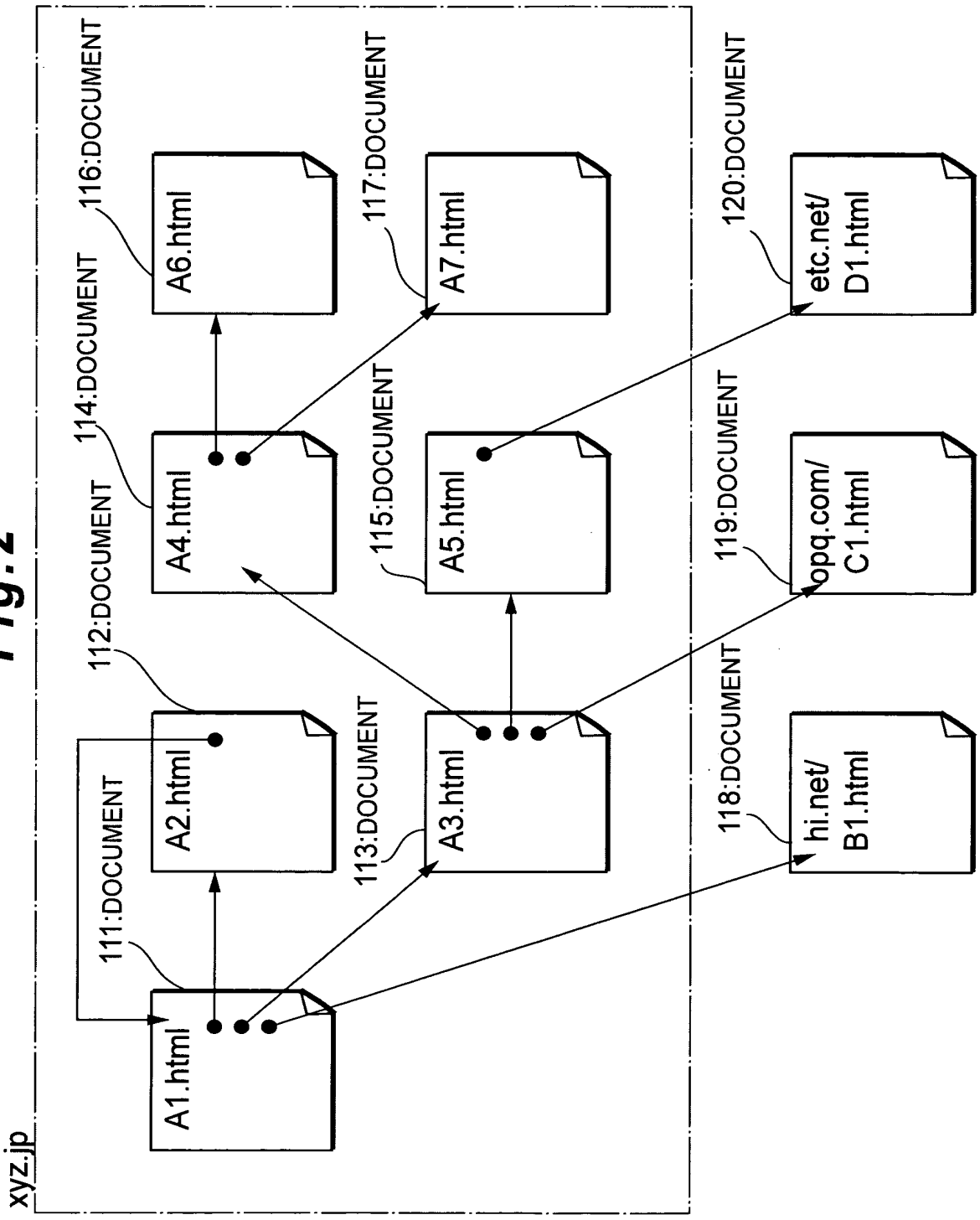

xyz.jp
111:DOCUMENT
A1.html
112:DOCUMENT
A2.html
113:DOCUMENT
A3.html
114:DOCUMENT
A4.html
115:DOCUMENT
A5.html
116:DOCUMENT
A6.html
117:DOCUMENT
A7.html
118:DOCUMENT
hi.net/
B1.html
119:DOCUMENT
opq.com/
C1.html
120:DOCUMENT
etc.net/
D1.html

Fig.3

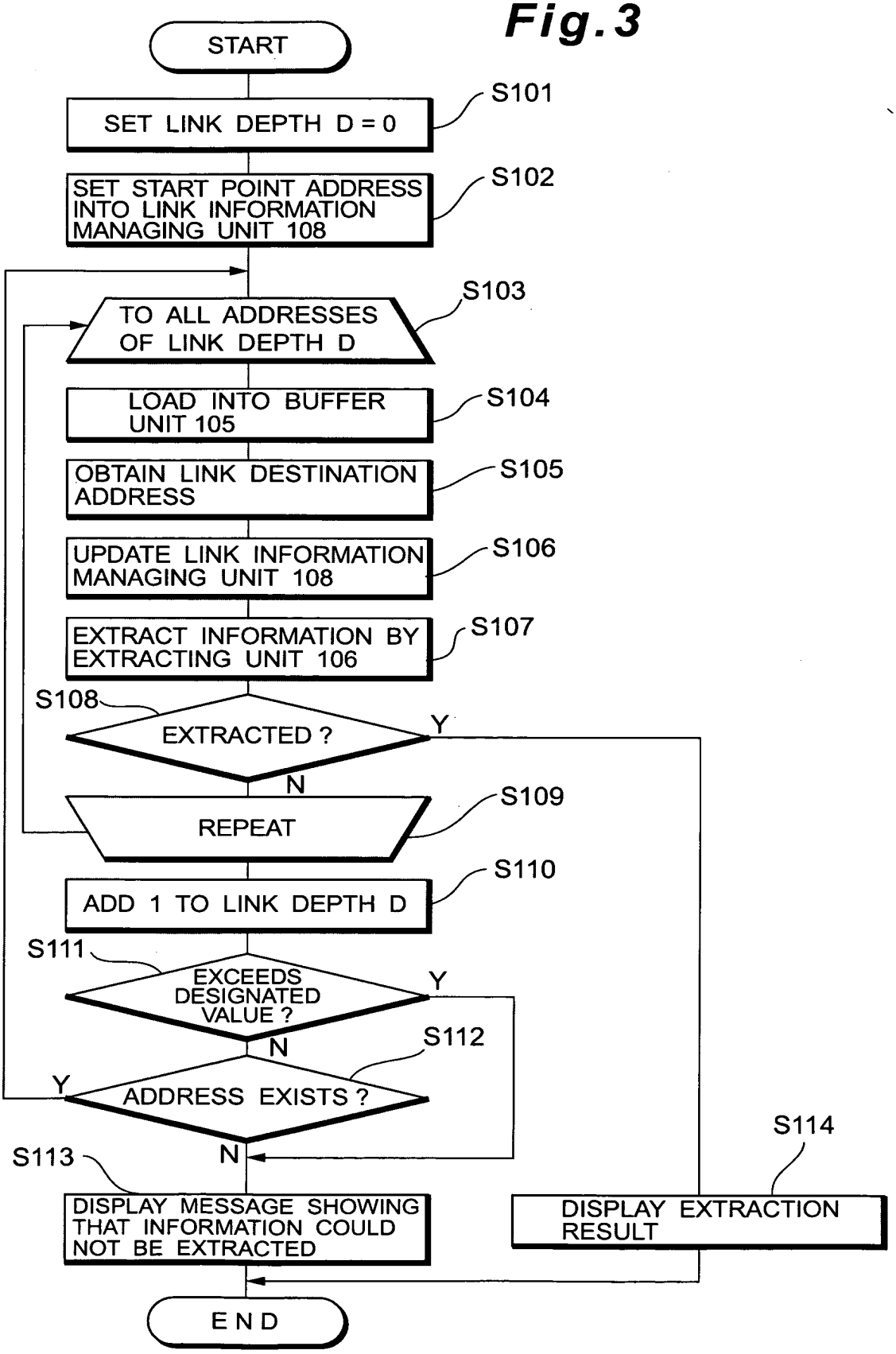

START
SET LINK DEPTH D = 0
S101
SET START POINT ADDRESS INTO LINK INFORMATION MANAGING UNIT 108
S102
TO ALL ADDRESSES OF LINK DEPTH D
S103
LOAD INTO BUFFER UNIT 105
S104
OBTAIN LINK DESTINATION ADDRESS
S105
UPDATE LINK INFORMATION MANAGING UNIT 108
S106
EXTRACT INFORMATION BY EXTRACTING UNIT 106
S107
S108
EXTRACTED ?
Y
N
REPEAT
S109
ADD 1 TO LINK DEPTH D
S110
S111
EXCEEDS DESIGNATED VALUE ?
Y
N
S112
ADDRESS EXISTS ?
Y
N
S113
DISPLAY MESSAGE SHOWING THAT INFORMATION COULD NOT BE EXTRACTED
S114
DISPLAY EXTRACTION RESULT
END

Fig.4

LINK DEPTH (D)	0	1	2	3
	A1.html			

Fig.5

LINK DEPTH (D)	0	1	2	3
	A1.html	A2.html A3.html		

Fig.6

LINK DEPTH (D)	0	1	2	3
	A1.html	A2.html	A1.html	A2.html
				A3.html
		A3.html	A4.html	A6.html
			A5.html	A7.html

Fig.7

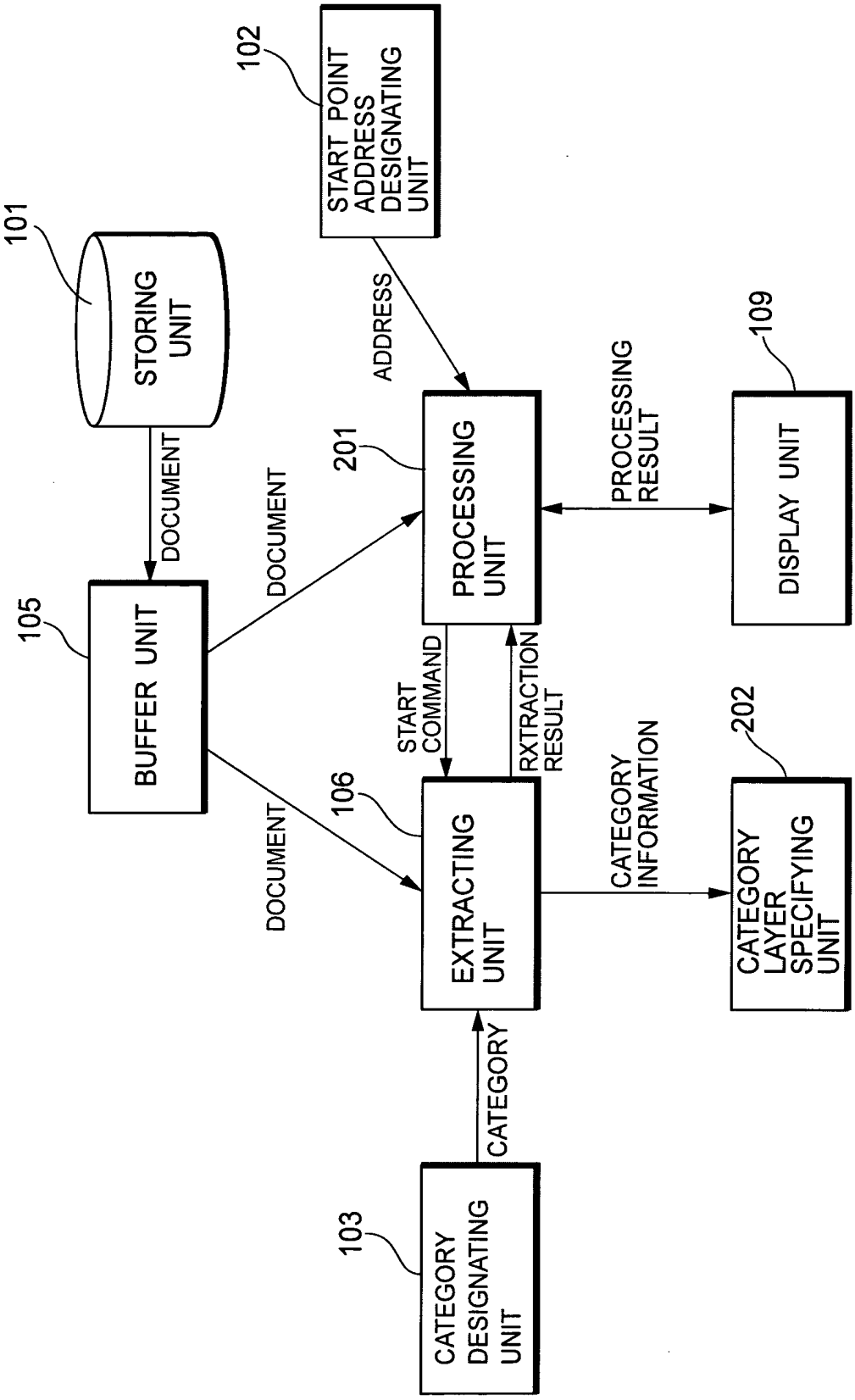

101
STORING UNIT
102
START POINT ADDRESS DESIGNATING UNIT
ADDRESS
DOCUMENT
105
BUFFER UNIT
DOCUMENT
201
PROCESSING UNIT
PROCESSING RESULT
109
DISPLAY UNIT
START COMMAND
RXTRACTION RESULT
DOCUMENT
106
EXTRACTING UNIT
CATEGORY INFORMATION
202
CATEGORY LAYER SPECIFYING UNIT
CATEGORY
103
CATEGORY DESIGNATING UNIT

Fig.8

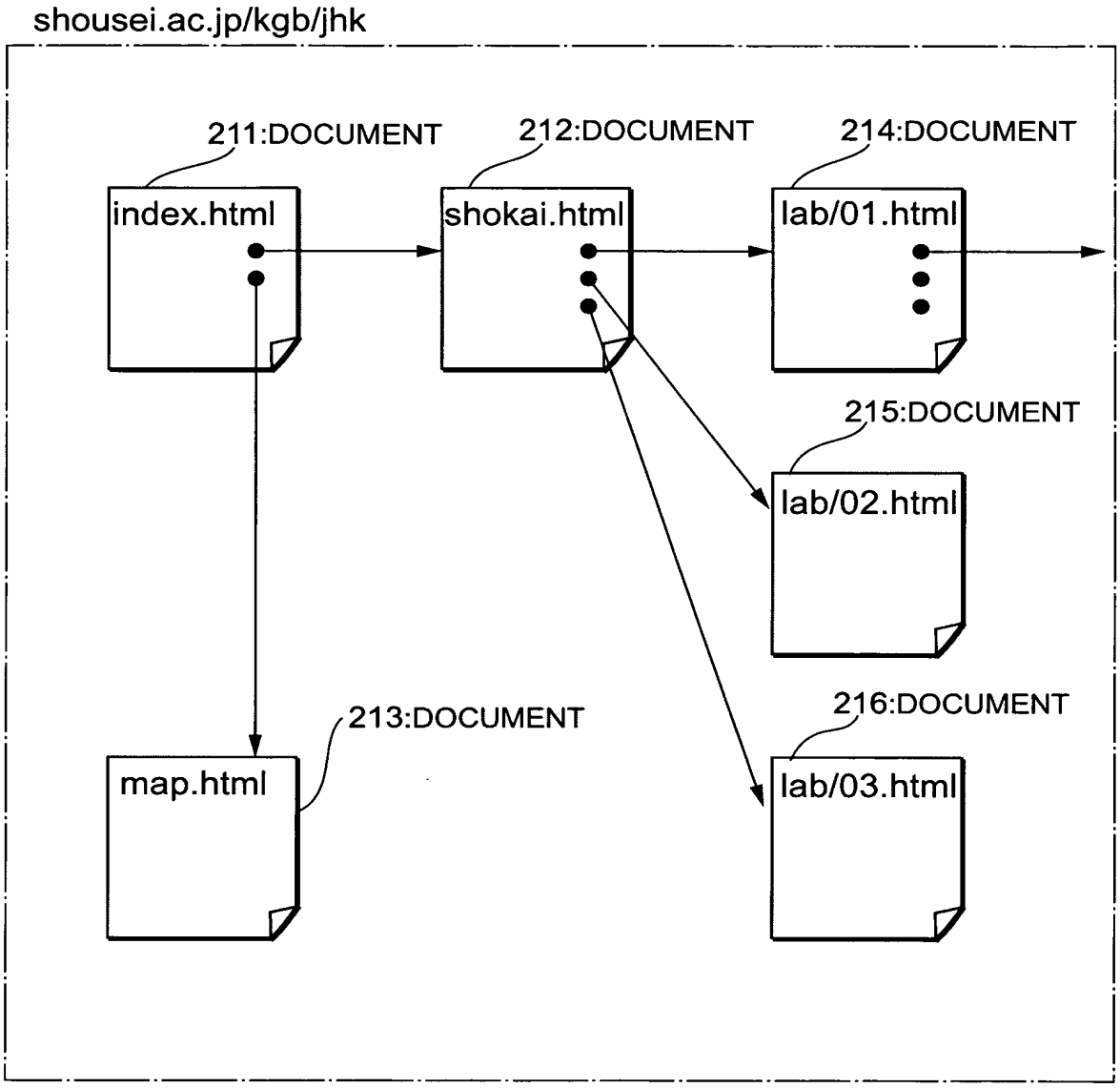

shousei.ac.jp/kgb/jhk
211:DOCUMENT
212:DOCUMENT
214:DOCUMENT
index.html
shokai.html
lab/01.html
215:DOCUMENT
lab/02.html
213:DOCUMENT
216:DOCUMENT
map.html
lab/03.html

Fig.9(a)

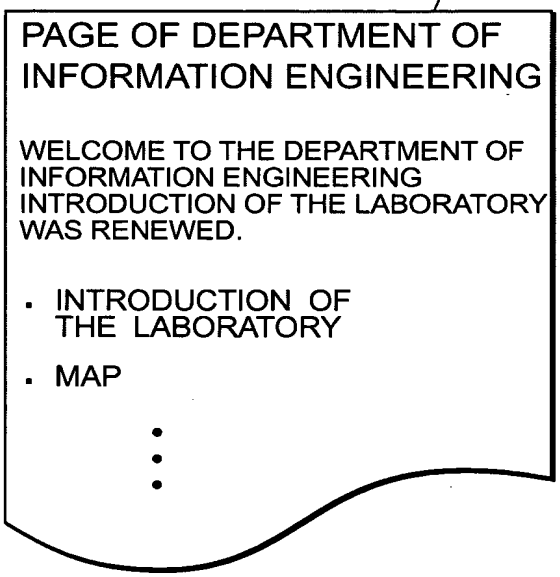


Fig.9(b)

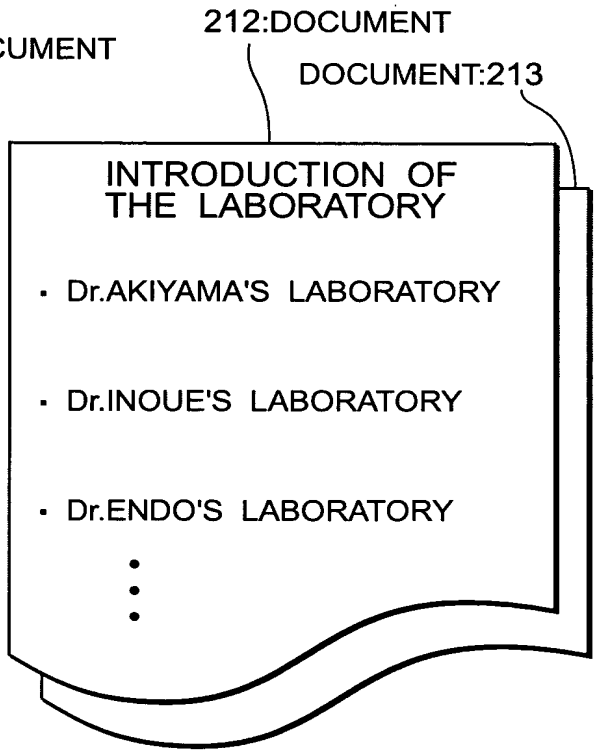


Fig.9(c)

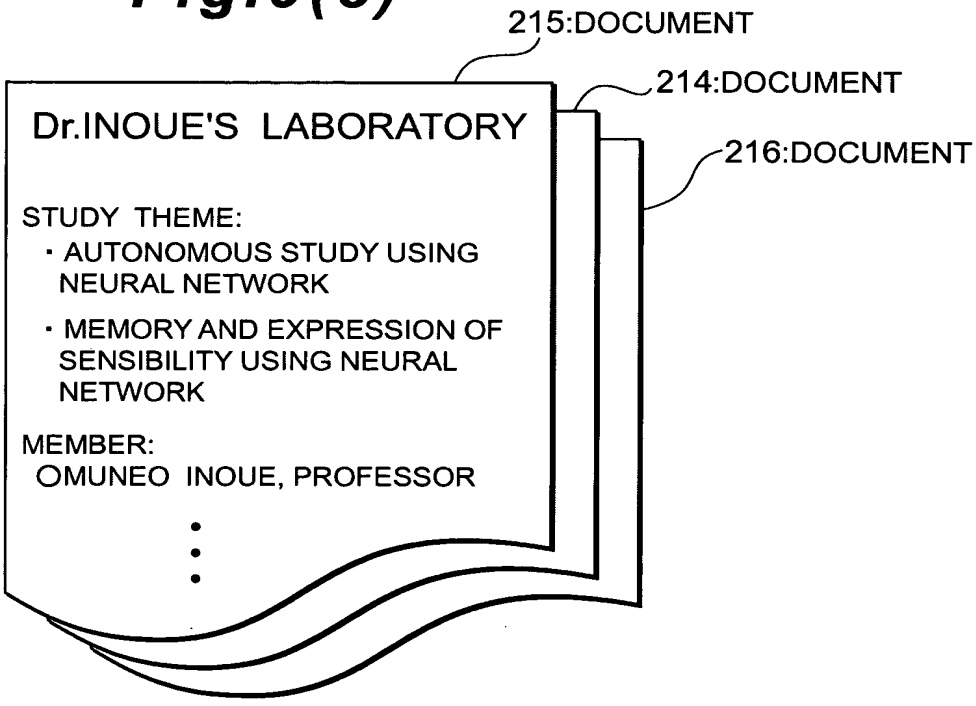


Fig.10

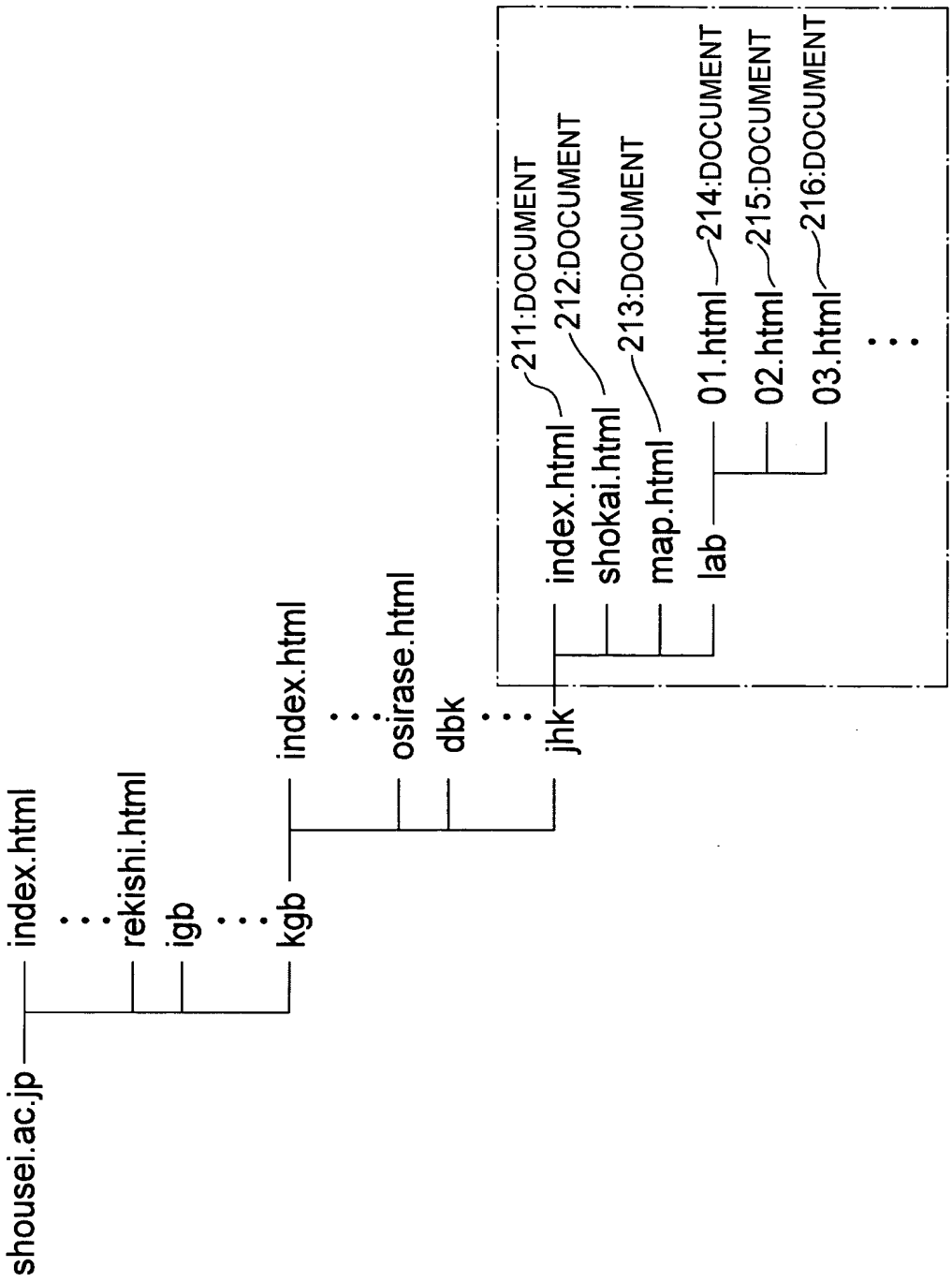

shousei.ac.jp
index.html
rekishi.html
igb
kgb
index.html
osirase.html
dbk
jhk
211:DOCUMENT
index.html
212:DOCUMENT
shokai.html
213:DOCUMENT
map.html
lab
214:DOCUMENT
01.html
215:DOCUMENT
02.html
216:DOCUMENT
03.html

Fig.11

	UPPER LAYER ←		← LOWER LAYER	
ORGANIZATION NAME (UNIVERSITY) (COMPANY)	UNIVERSITY NAME	FACULTY NAME	DEPARTMENT NAME	LABORATORY NAME
	COMPANY NAME	DIVISION NAME	DEPARTMENT NAME	NAME OF SECTION IN CHARGE
ADDRESS	PREFECTURE NAME	CITY NAME	WARD NAME	TOWN NAME
	PREFECTURE NAME	COUNTRY NAME	TOWN NAME	—
	PREFECTURE NAME	COUNTRY NAME	VILLAGE NAME	—
STATION NAME	RAILROAD COMPANY NAME	LINE NAME	STATION NAME	—
CLASSIFICATION OF ANIMAL / PLANT	GENUS NAME	FAMILY NAME	ORDER NAME	—

Fig.12

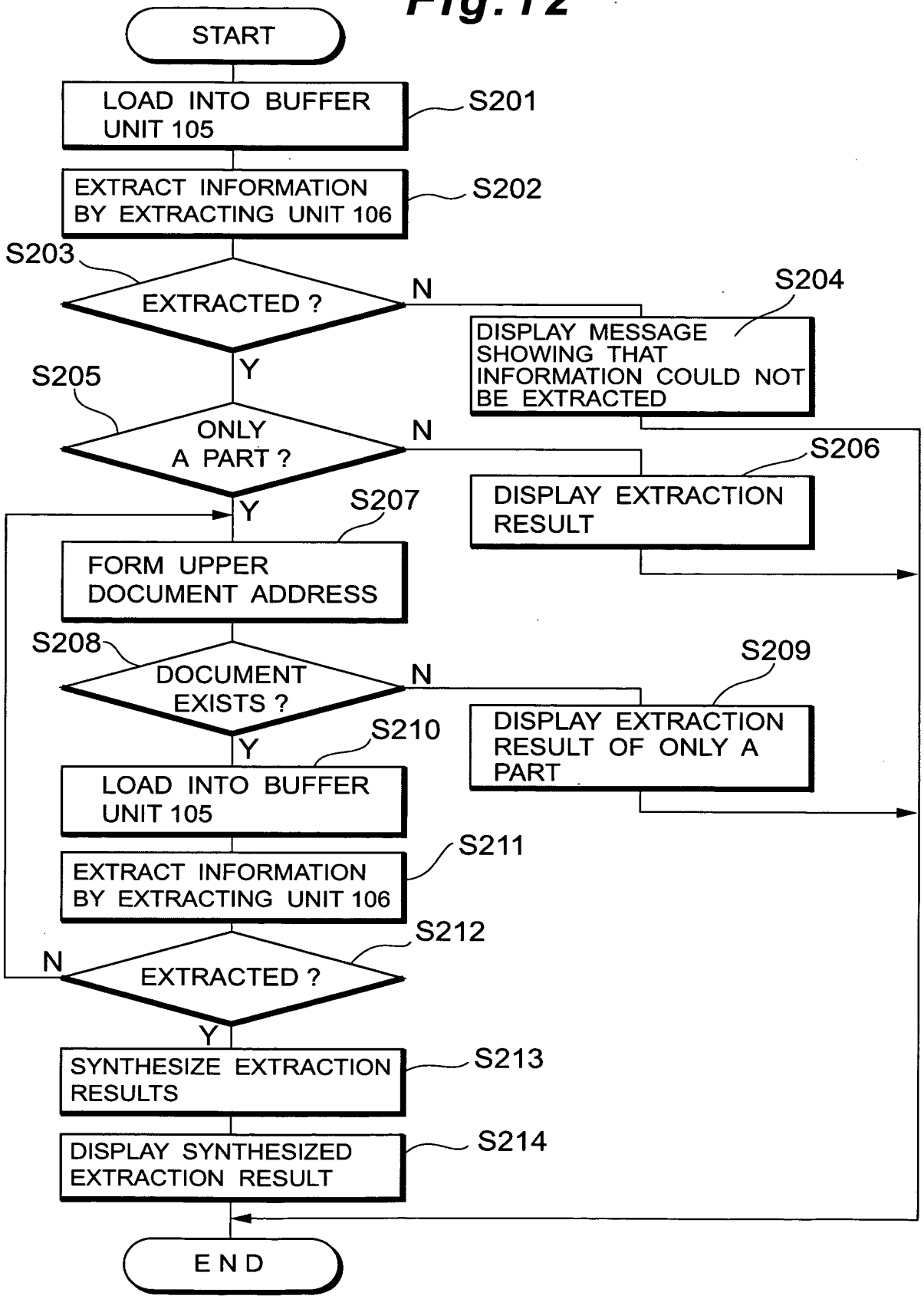

START
LOAD INTO BUFFER UNIT 105
S201
EXTRACT INFORMATION BY EXTRACTING UNIT 106
S202
S203
EXTRACTED ?
N
S204
DISPLAY MESSAGE SHOWING THAT INFORMATION COULD NOT BE EXTRACTED
Y
S205
ONLY A PART ?
N
S206
DISPLAY EXTRACTION RESULT
Y
S207
FORM UPPER DOCUMENT ADDRESS
S208
DOCUMENT EXISTS ?
N
S209
DISPLAY EXTRACTION RESULT OF ONLY A PART
Y
S210
LOAD INTO BUFFER UNIT 105
S211
EXTRACT INFORMATION BY EXTRACTING UNIT 106
S212
N
EXTRACTED ?
Y
SYNTHESIZE EXTRACTION RESULTS
S213
DISPLAY SYNTHESIZED EXTRACTION RESULT
S214
END

Fig.13

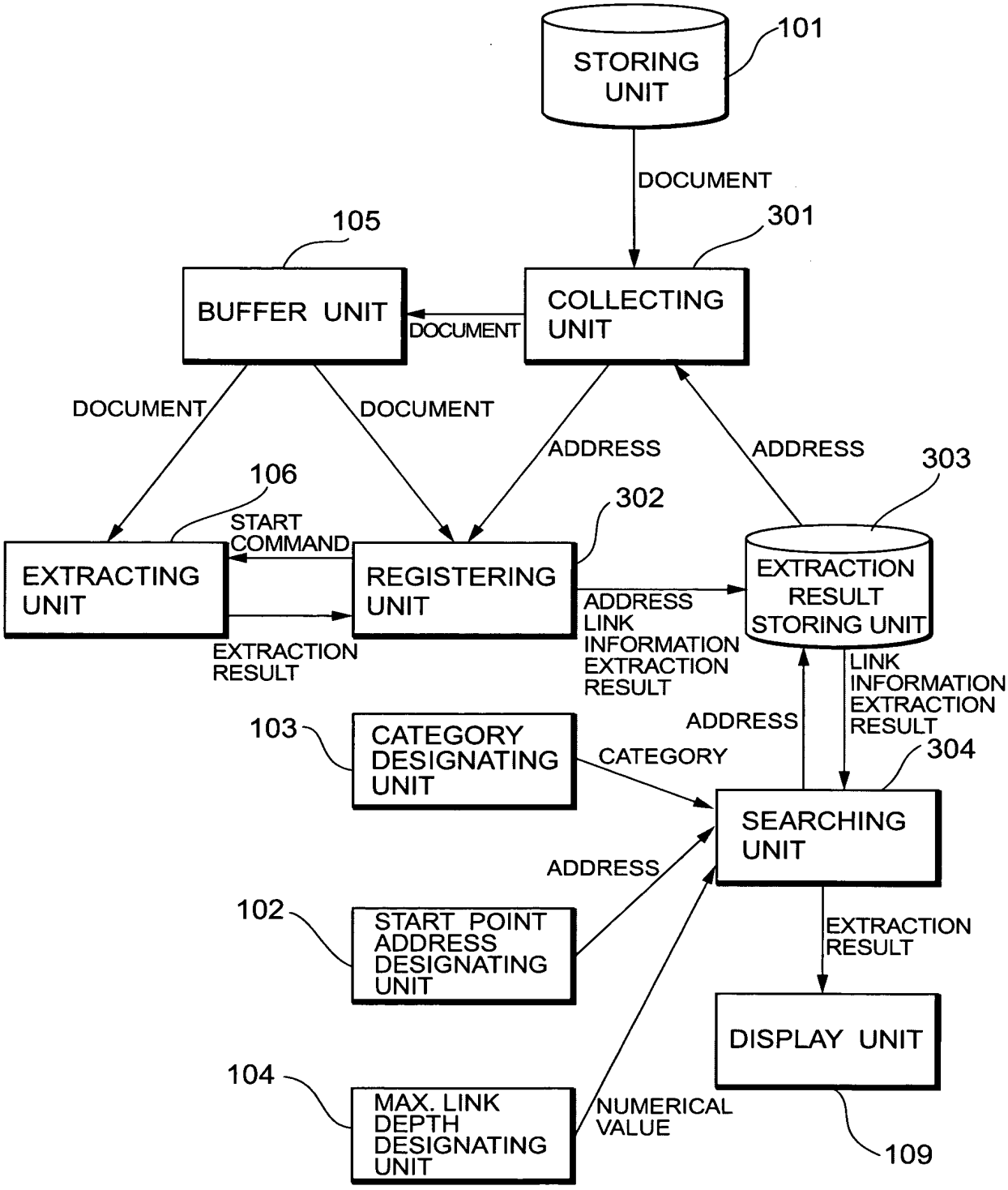

STORING UNIT
101
DOCUMENT
105
301
BUFFER UNIT
DOCUMENT
COLLECTING UNIT
DOCUMENT
DOCUMENT
ADDRESS
ADDRESS
303
106
302
START COMMAND
EXTRACTING UNIT
REGISTERING UNIT
EXTRACTION RESULT STORING UNIT
ADDRESS
LINK INFORMATION EXTRACTION RESULT
EXTRACTION RESULT
LINK INFORMATION EXTRACTION RESULT
ADDRESS
103
CATEGORY DESIGNATING UNIT
CATEGORY
304
SEARCHING UNIT
ADDRESS
102
START POINT ADDRESS DESIGNATING UNIT
EXTRACTION RESULT
DISPLAY UNIT
104
MAX. LINK DEPTH DESIGNATING UNIT
NUMERICAL VALUE
109

Fig.14

	ADDRESS	EXTRACTION RESULT		LINK INFORMATION	
		CATEGORY	EXTRACTION RESULT	LINK DESTINATION	LINK SOURCE
1	A1.html	PERSON NAME	INAO UEDA	A2.html A3.html	A2.html
2	A2.html	DATE DATE	12/20 10/3	A1.html	A1.html
3	A3.html			A4.html A5.html	A1.html
4	A4.html	ORGANIZATION NAME (UNIVERSITY NAME)	SHOSEI UNIVERSITY	A6.html A7.html	A3.html
5	A5.html				A3.html
6	A6.html	PERSON NAME	MAMETARO ENDO		A4.html
7	A7.html				A4.html

Fig.15

LINK DEPTH D	DOCUMENT LIST
0	A3.html
1	A4.html,A5.html,A1.html
2	A6.html,A7.html,A2.html

Fig.16

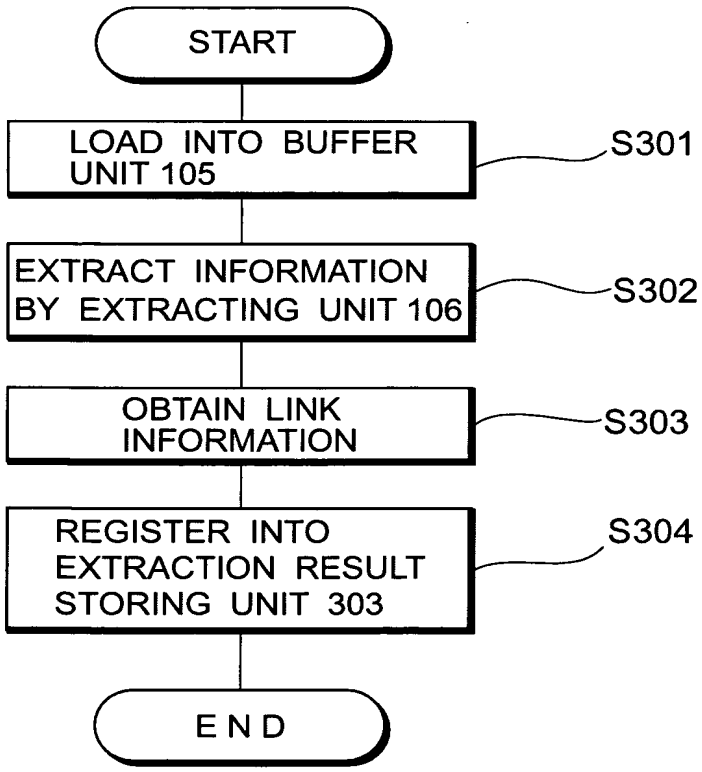


Fig.17

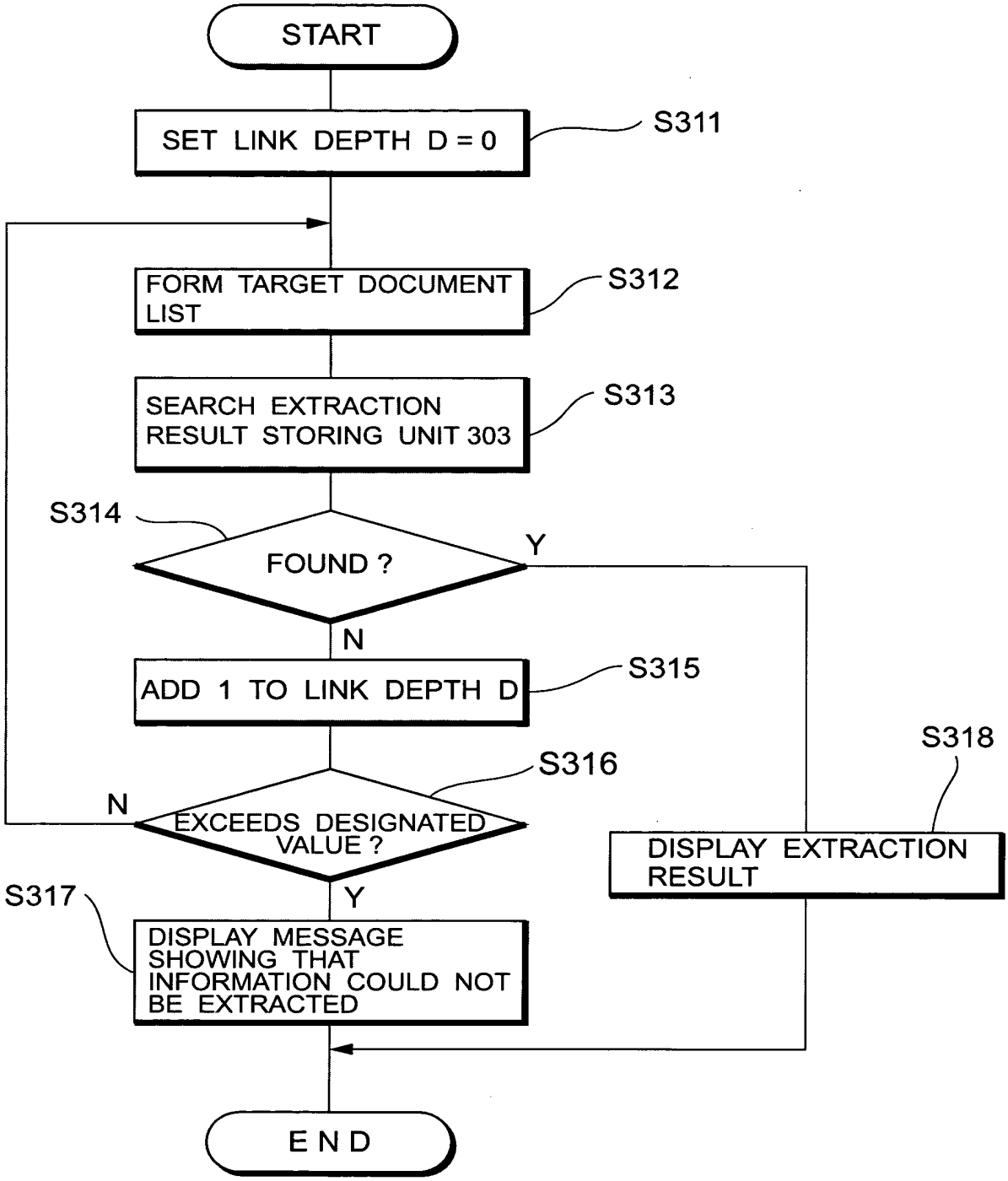

START
SET LINK DEPTH D = 0
S311
FORM TARGET DOCUMENT LIST
S312
SEARCH EXTRACTION RESULT STORING UNIT 303
S313
S314
FOUND ?
Y
N
ADD 1 TO LINK DEPTH D
S315
S316
N
EXCEEDS DESIGNATED VALUE ?
Y
S317
DISPLAY MESSAGE SHOWING THAT INFORMATION COULD NOT BE EXTRACTED
S318
DISPLAY EXTRACTION RESULT
END

Fig.18

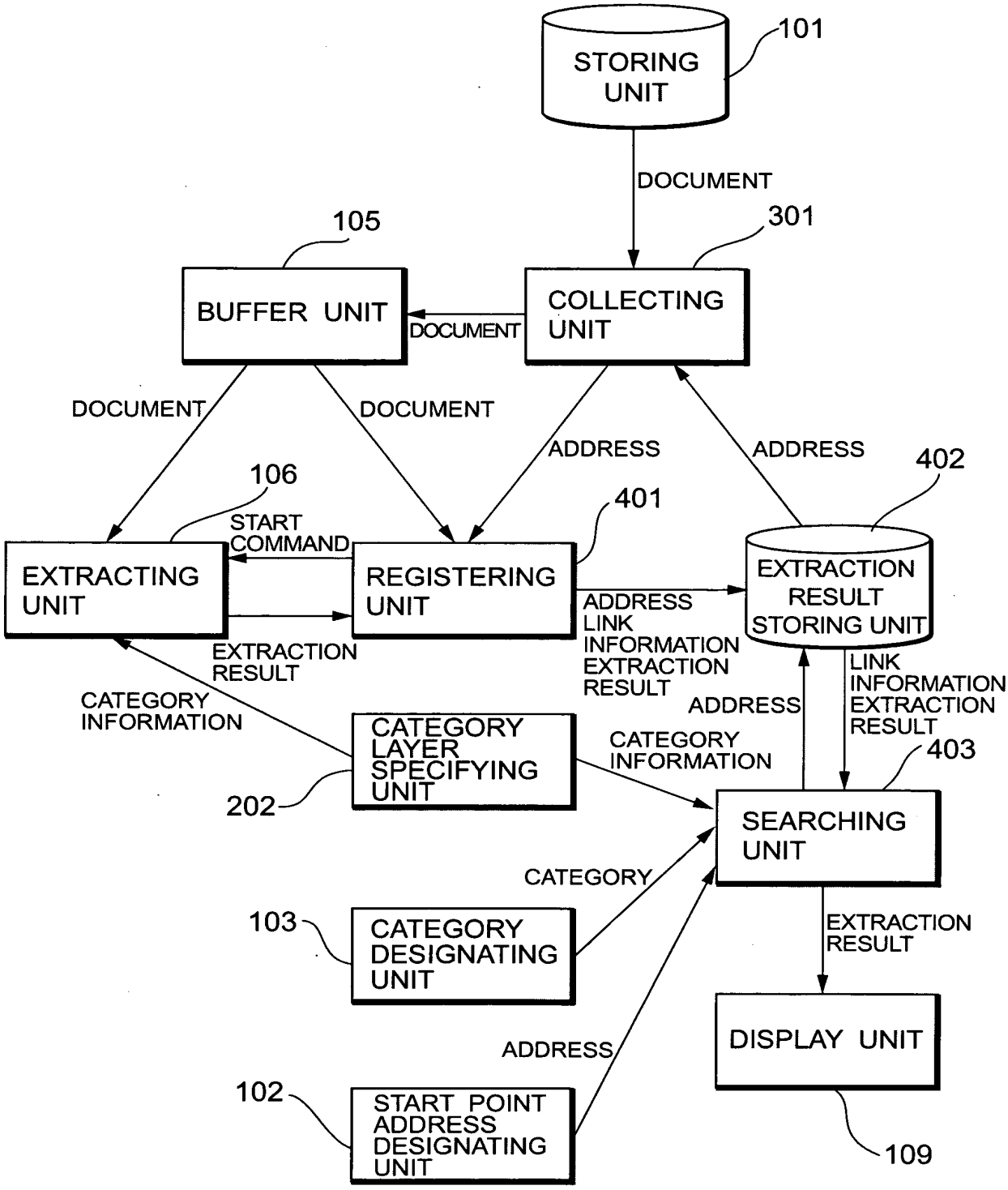
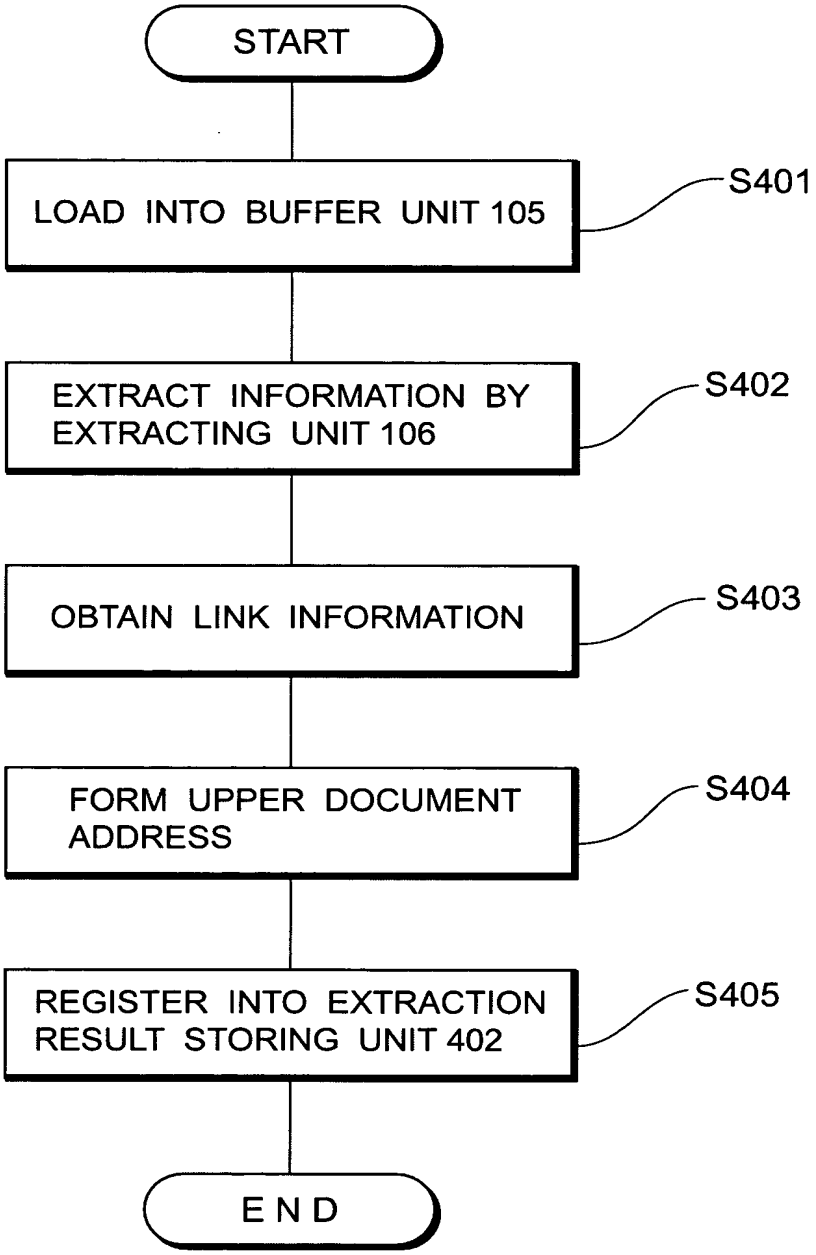

STORING UNIT
101
DOCUMENT
105
301
BUFFER UNIT
DOCUMENT
COLLECTING UNIT
DOCUMENT
DOCUMENT
ADDRESS
ADDRESS
402
106
401
START COMMAND
EXTRACTING UNIT
REGISTERING UNIT
EXTRACTION RESULT STORING UNIT
ADDRESS
LINK INFORMATION
EXTRACTION RESULT
EXTRACTION RESULT
LINK INFORMATION
EXTRACTION RESULT
ADDRESS
CATEGORY INFORMATION
CATEGORY LAYER SPECIFYING UNIT
CATEGORY INFORMATION
403
202
SEARCHING UNIT
CATEGORY
103
CATEGORY DESIGNATING UNIT
EXTRACTION RESULT
DISPLAY UNIT
ADDRESS
102
START POINT ADDRESS DESIGNATING UNIT
109

Fig.19

	ADDRESS	EXTRACTION RESULT		LINK INFORMATION		UPPER DOCUMENT
		CATEGORY	EXTRACTION RESULT	LINK DESTINATION	LINK SOURCE	
1	index.html	ORGANIZATION NAME (DEPARTMENT NAME)	DEPARTMENT OF INFORMATION ENGINEERING	shokai.html map.html		※1
2	shokai.html	ORGANIZATION NAME (LABORATORY NAME) ORGANIZATION NAME (LABORATORY NAME) ORGANIZATION NAME (LABORATORY NAME)	Dr.AKIYAMA'S LABORATORY Dr.INOUE'S LABORATORY Dr.ENDO'S LABORATORY	lab/01.html lab/02.html lab/03.html	index.html	※1
3	map.html	ADDRESS	OSAKA-FU		index.html	※1
4	lab/01.html	ORGANIZATION NAME (LABORATORY NAME) PERSON NAME ⋮	Dr.AKIYAMA'S LABORATORY TOSHIHIKO AKIYAMA ⋮		shokai.html	index.html shokai.html
5	lab/02.html	ORGANIZATION NAME (LABORATORY NAME) PERSON NAME ⋮	Dr.INOUE'S LABORATORY MUNEO INOUE ⋮		shokai.html	index.html shokai.html
6	lab/03.html	ORGANIZATION NAME (LABORATORY NAME) PERSON NAME ⋮	Dr.ENDO'S LABORATORY MAMETARO ENDO ⋮		shokai.html	index.html shokai.html
	⋮					

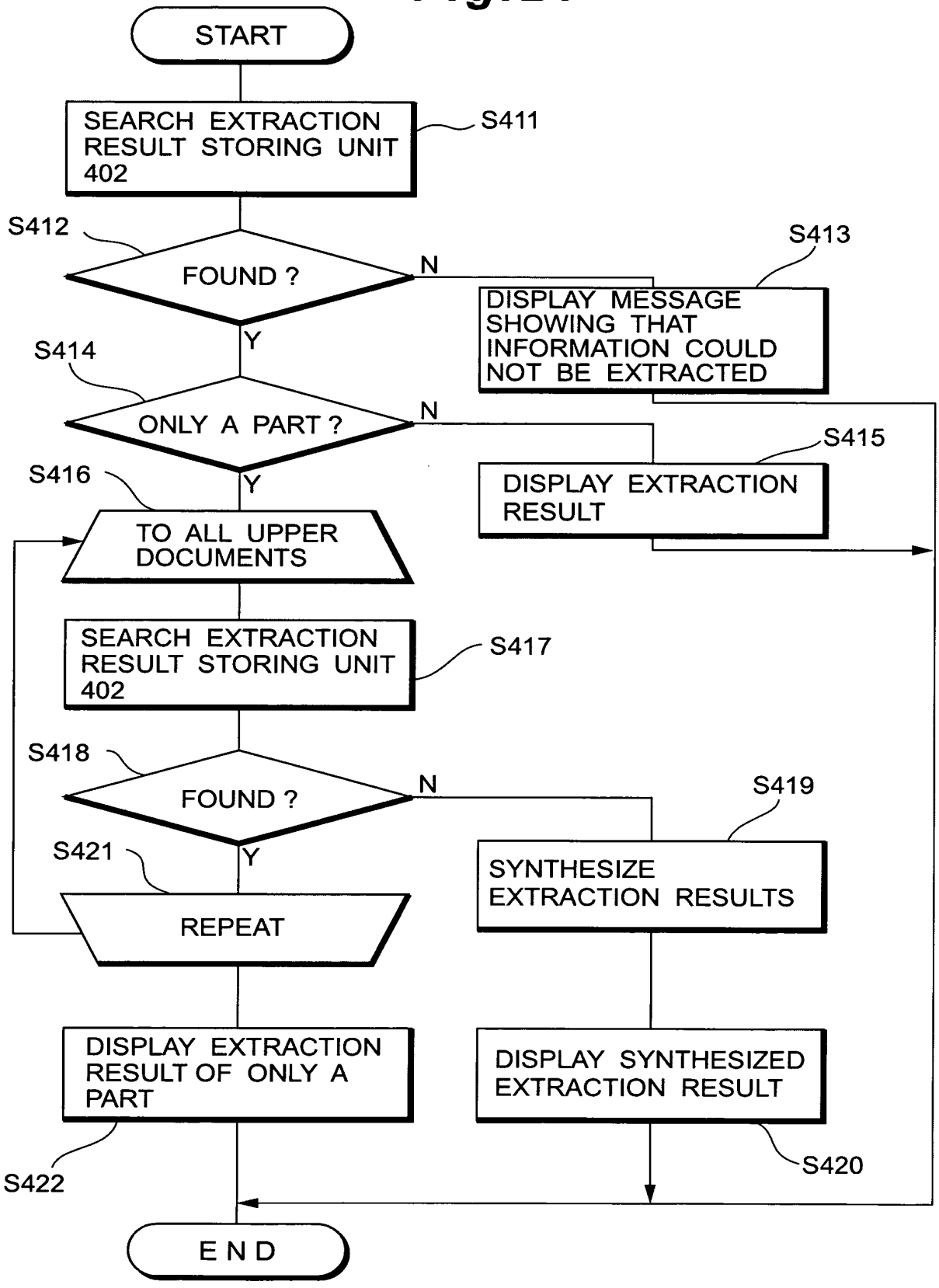
※1:shousei.ac.jp/kgb/index.html

Fig.20


START
LOAD INTO BUFFER UNIT 105
S401
EXTRACT INFORMATION BY EXTRACTING UNIT 106
S402
OBTAIN LINK INFORMATION
S403
FORM UPPER DOCUMENT ADDRESS
S404
REGISTER INTO EXTRACTION RESULT STORING UNIT 402
S405
END

18/18

Fig.21


START
SEARCH EXTRACTION RESULT STORING UNIT 402
S411
S412
FOUND ?
N
S413
DISPLAY MESSAGE SHOWING THAT INFORMATION COULD NOT BE EXTRACTED
Y
S414
ONLY A PART ?
N
S415
DISPLAY EXTRACTION RESULT
S416
Y
TO ALL UPPER DOCUMENTS
SEARCH EXTRACTION RESULT STORING UNIT 402
S417
S418
FOUND ?
N
S419
SYNTHESIZE EXTRACTION RESULTS
S421
Y
REPEAT
DISPLAY EXTRACTION RESULT OF ONLY A PART
DISPLAY SYNTHESIZED EXTRACTION RESULT
S420
S422
END